FIG.1

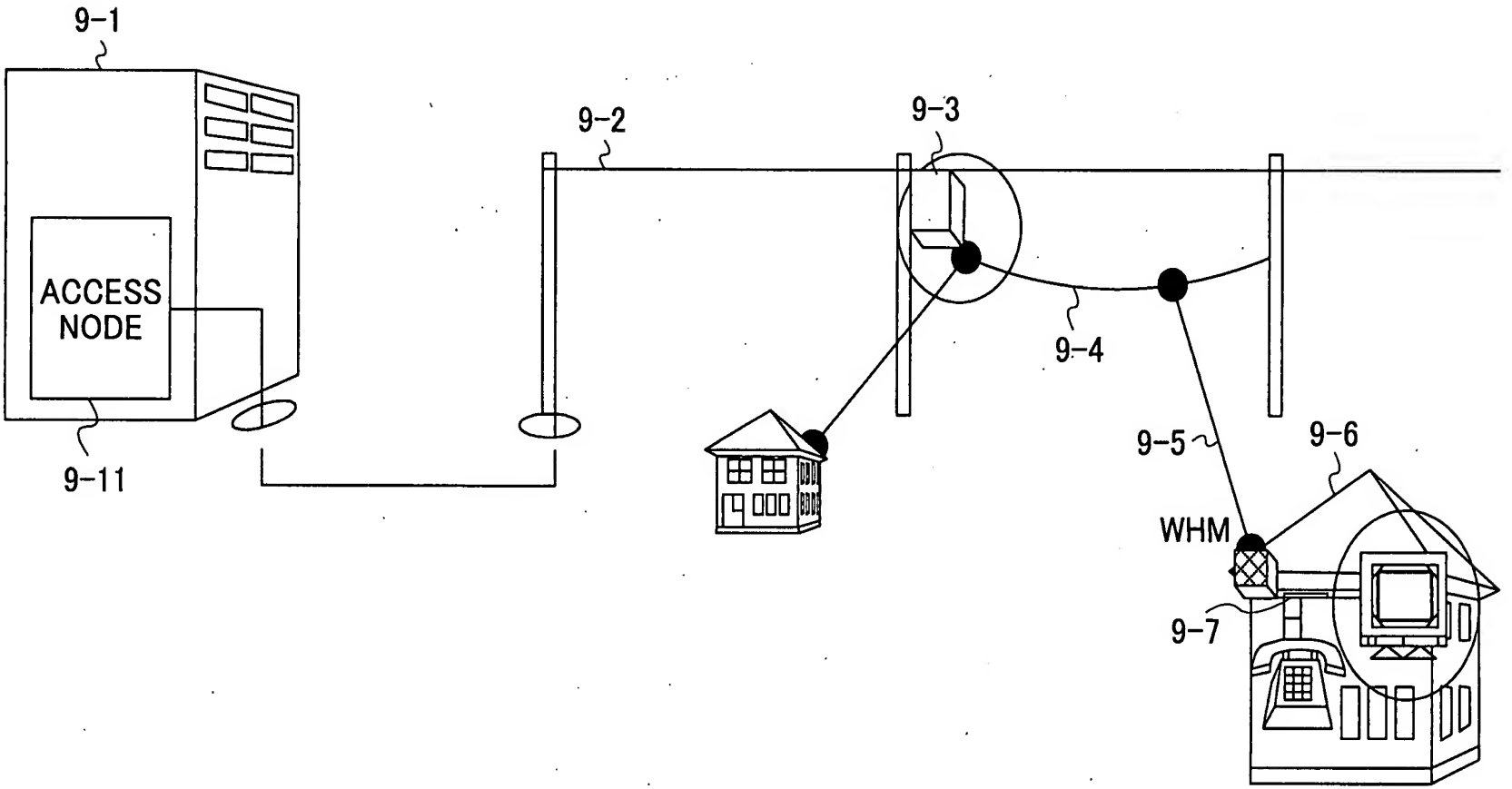


FIG.2

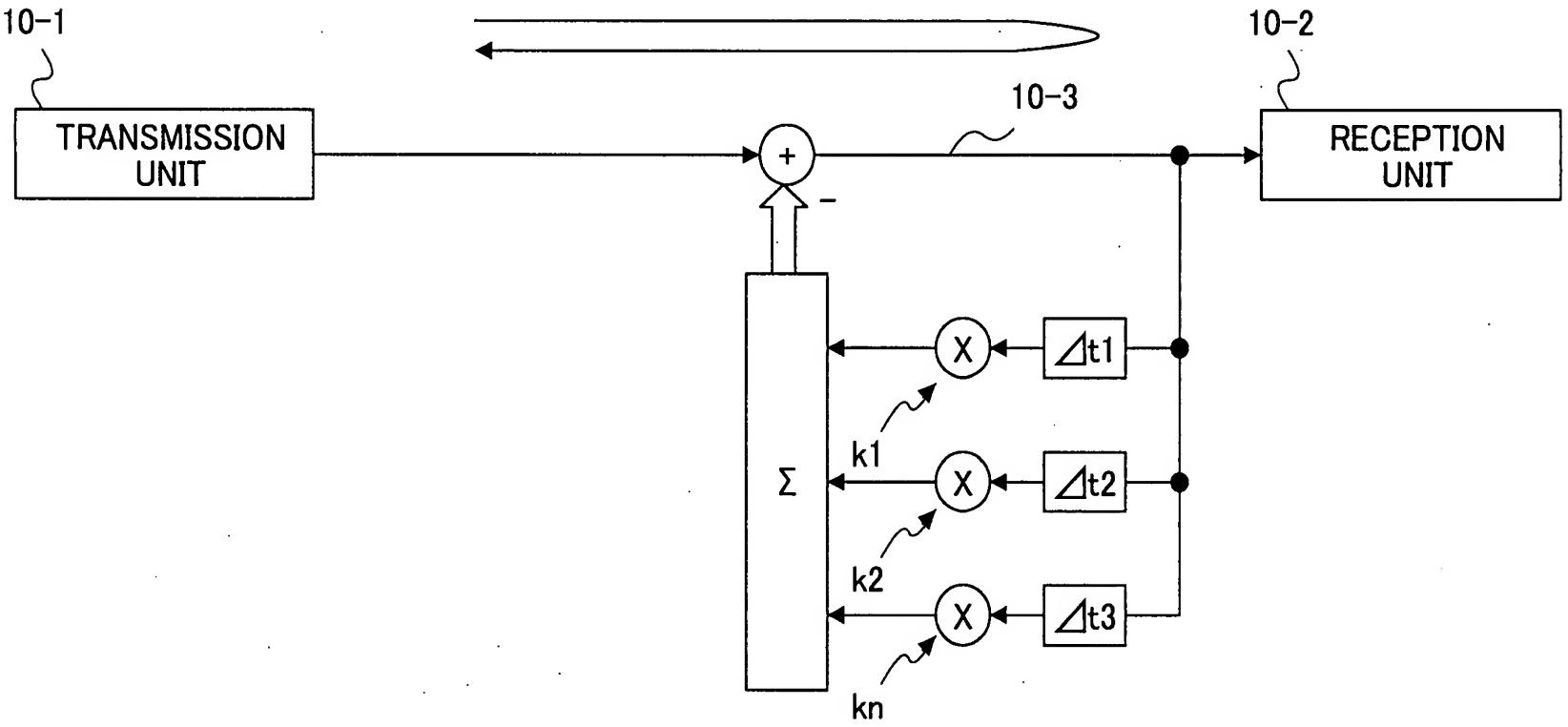

10-1
TRANSMISSION UNIT
10-2
RECEPTION UNIT
10-3
+
−
Σ
X
X
X
Δt1
Δt2
Δt3
k1
k2
kn

FIG.3A

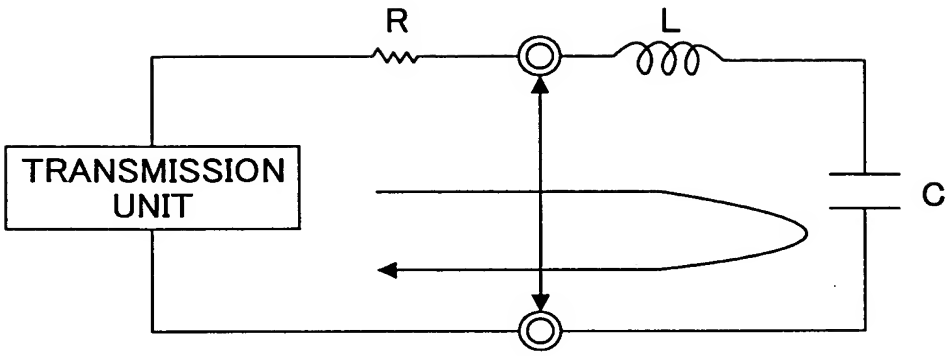


FIG.3B

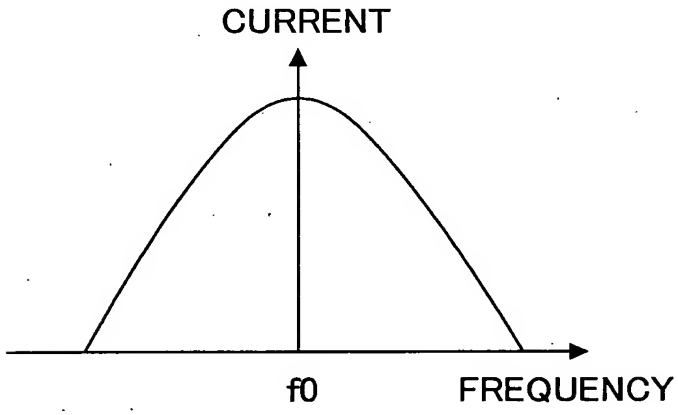


FIG.4A

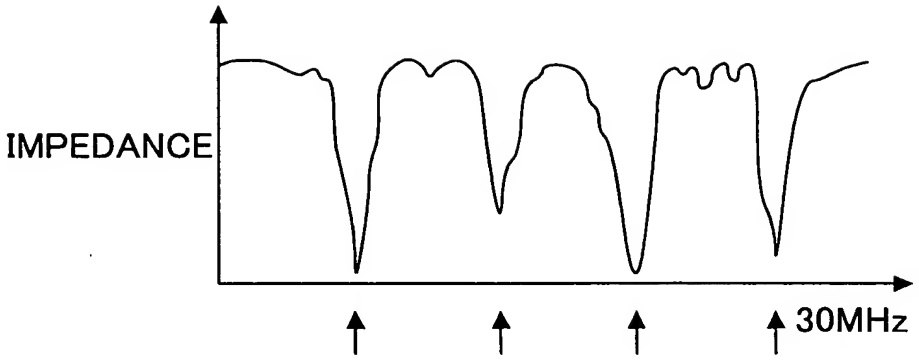


FIG.4B

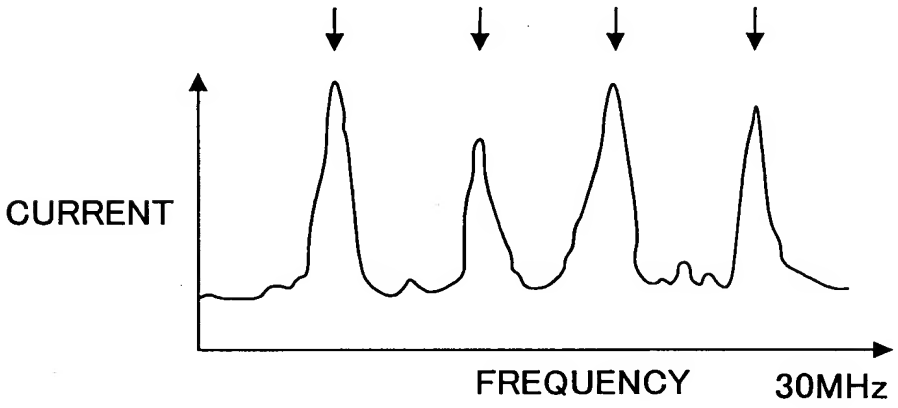


FIG.5

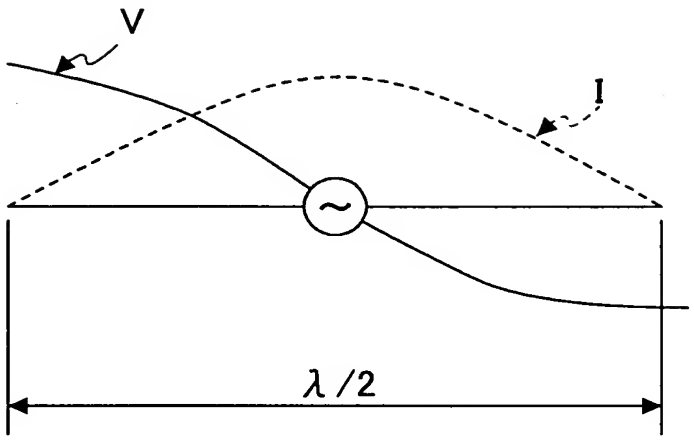


FIG.6A

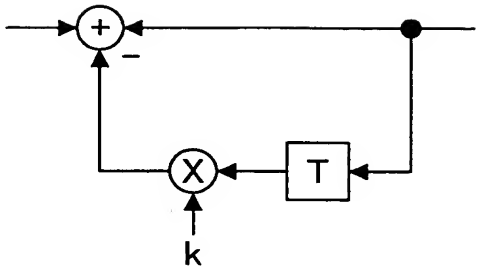


FIG.6B

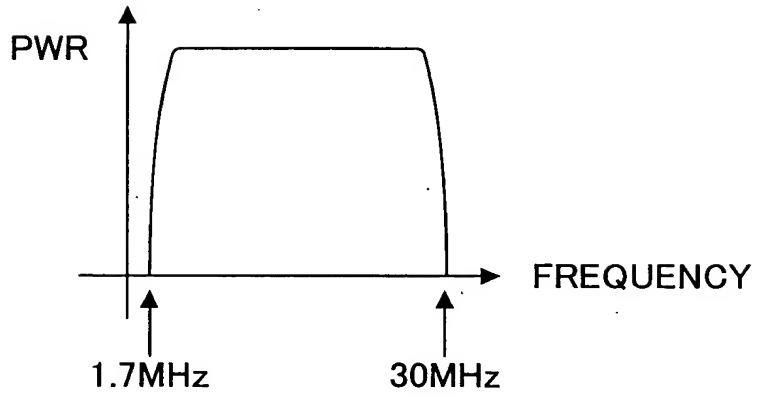


FIG.6C

FIG.6D

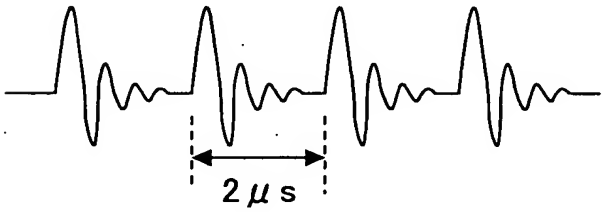
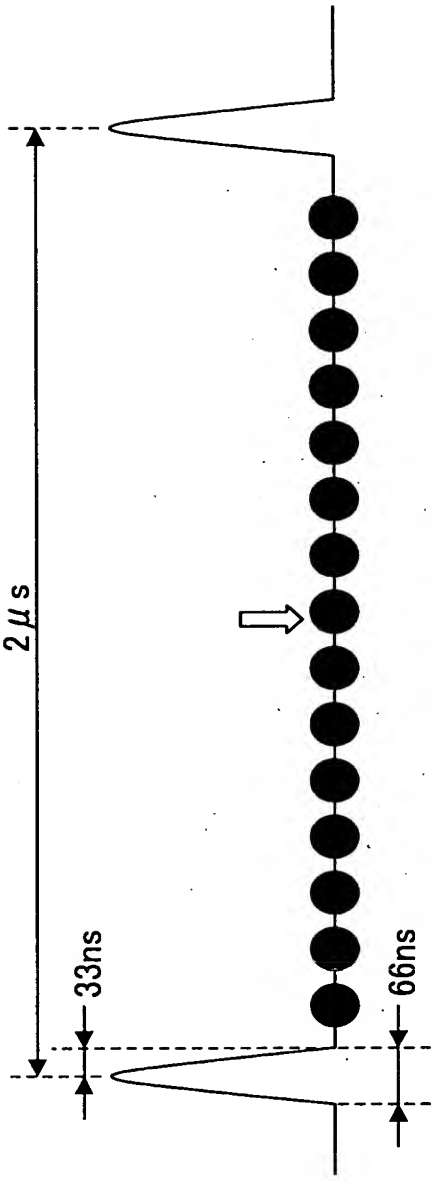


FIG.7



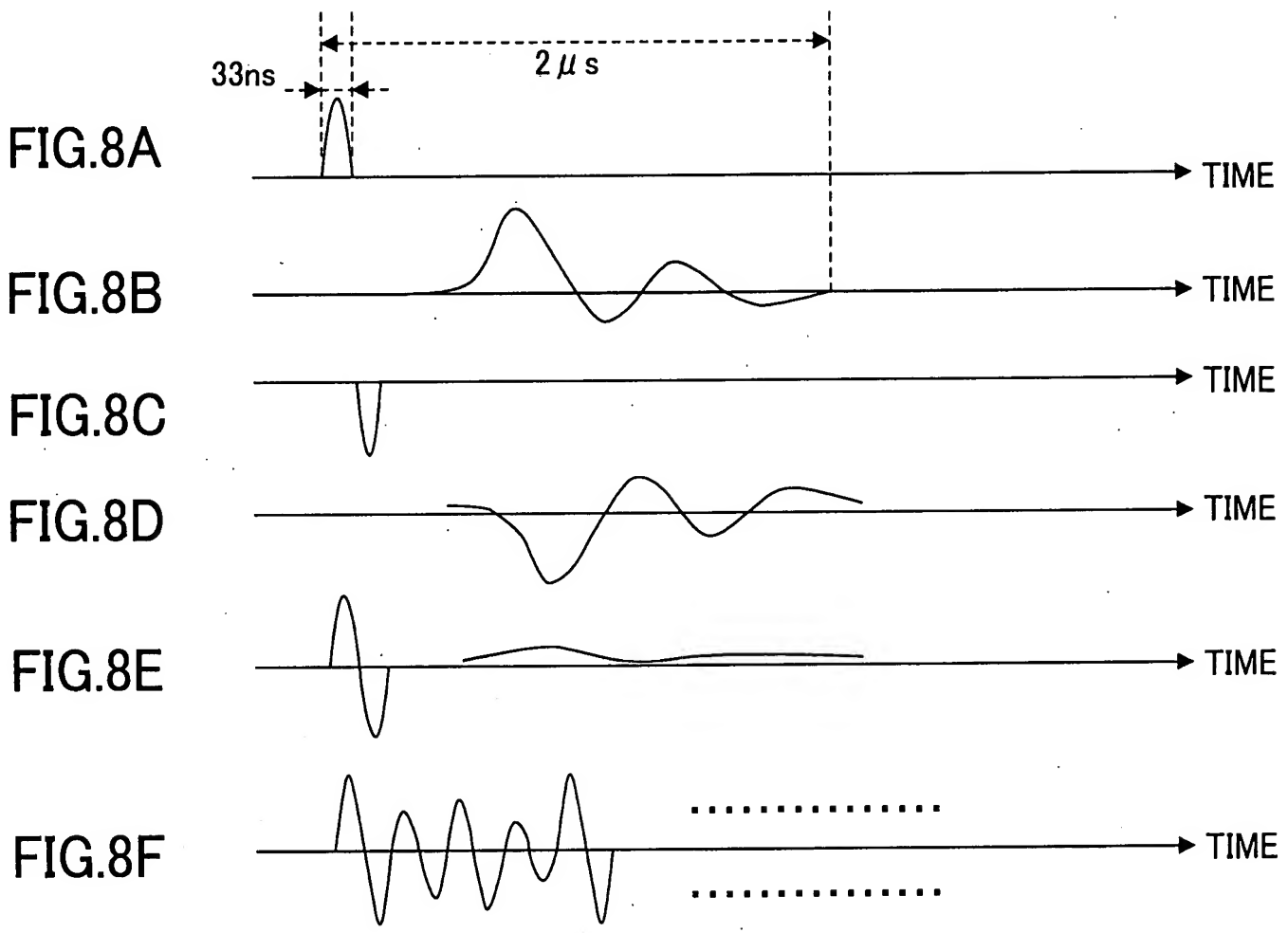


FIG.8A

FIG.8B

FIG.8C

FIG.8D

FIG.8E

FIG.8F

FIG.9

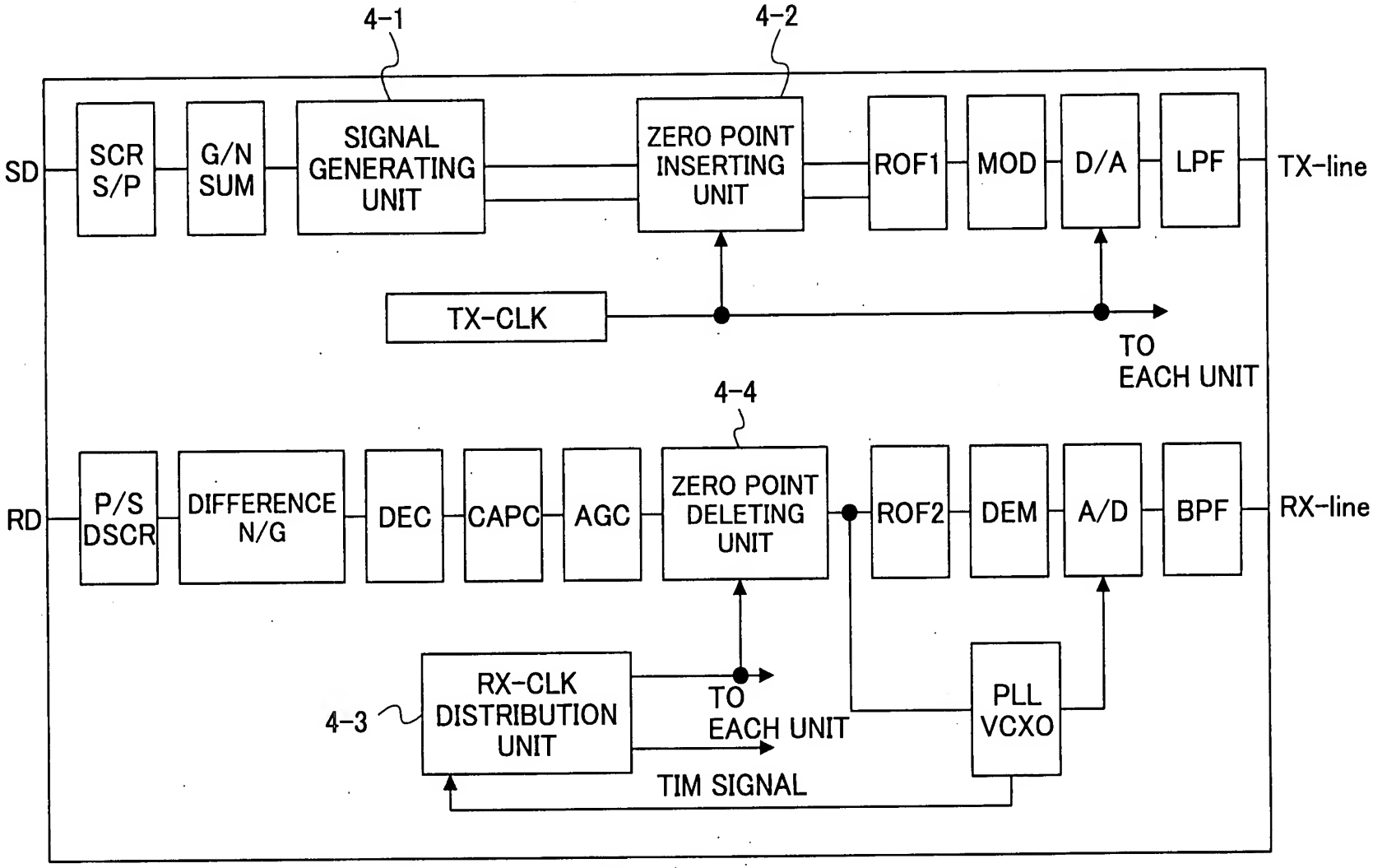

4-1
4-2
SD
SCR S/P
G/N SUM
SIGNAL GENERATING UNIT
ZERO POINT INSERTING UNIT
ROF1
MOD
D/A
LPF
TX-line
TX-CLK
TO EACH UNIT
4-4
RD
P/S DSCR
DIFFERENCE N/G
DEC
CAPC
AGC
ZERO POINT DELETING UNIT
ROF2
DEM
A/D
BPF
RX-line
4-3
RX-CLK DISTRIBUTION UNIT
TO EACH UNIT
PLL VCXO
TIM SIGNAL

FIG.10A

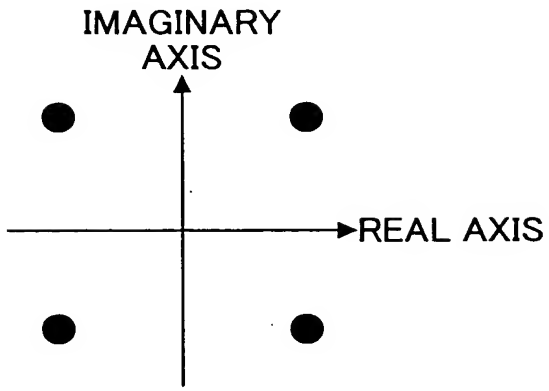


FIG.10B

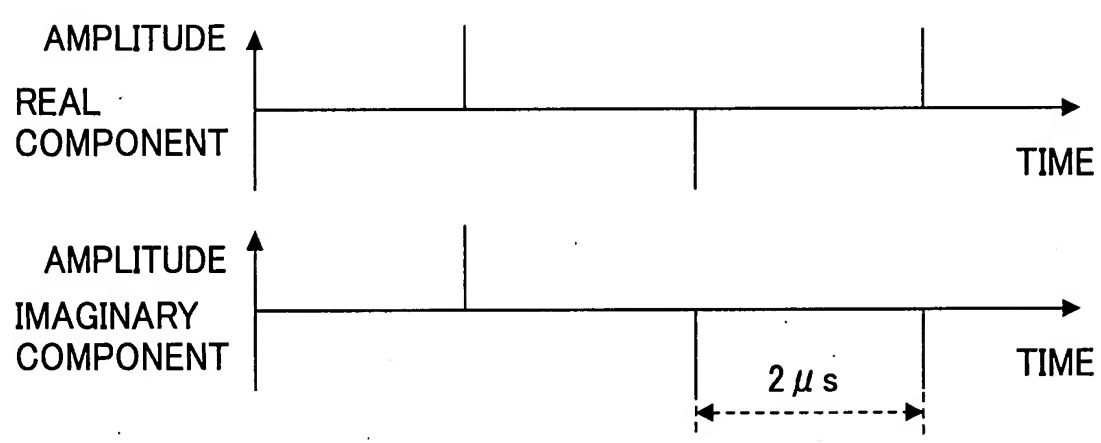


FIG.10C

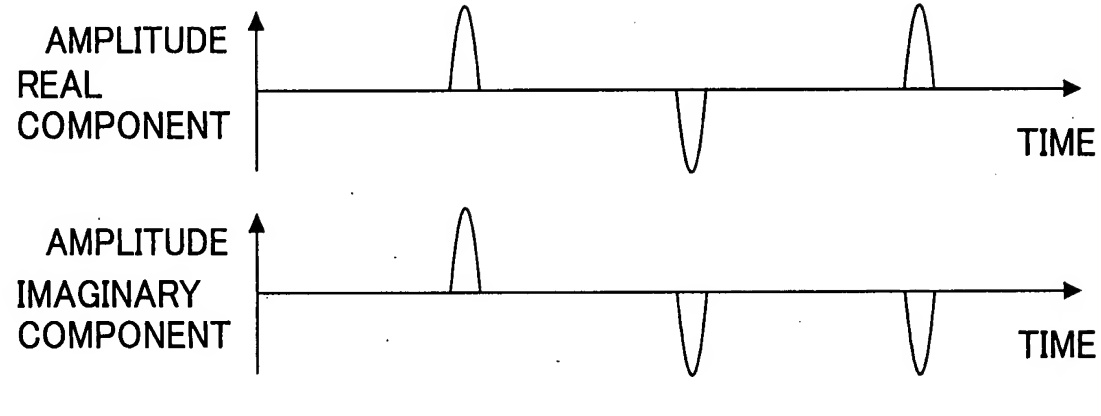


FIG.11

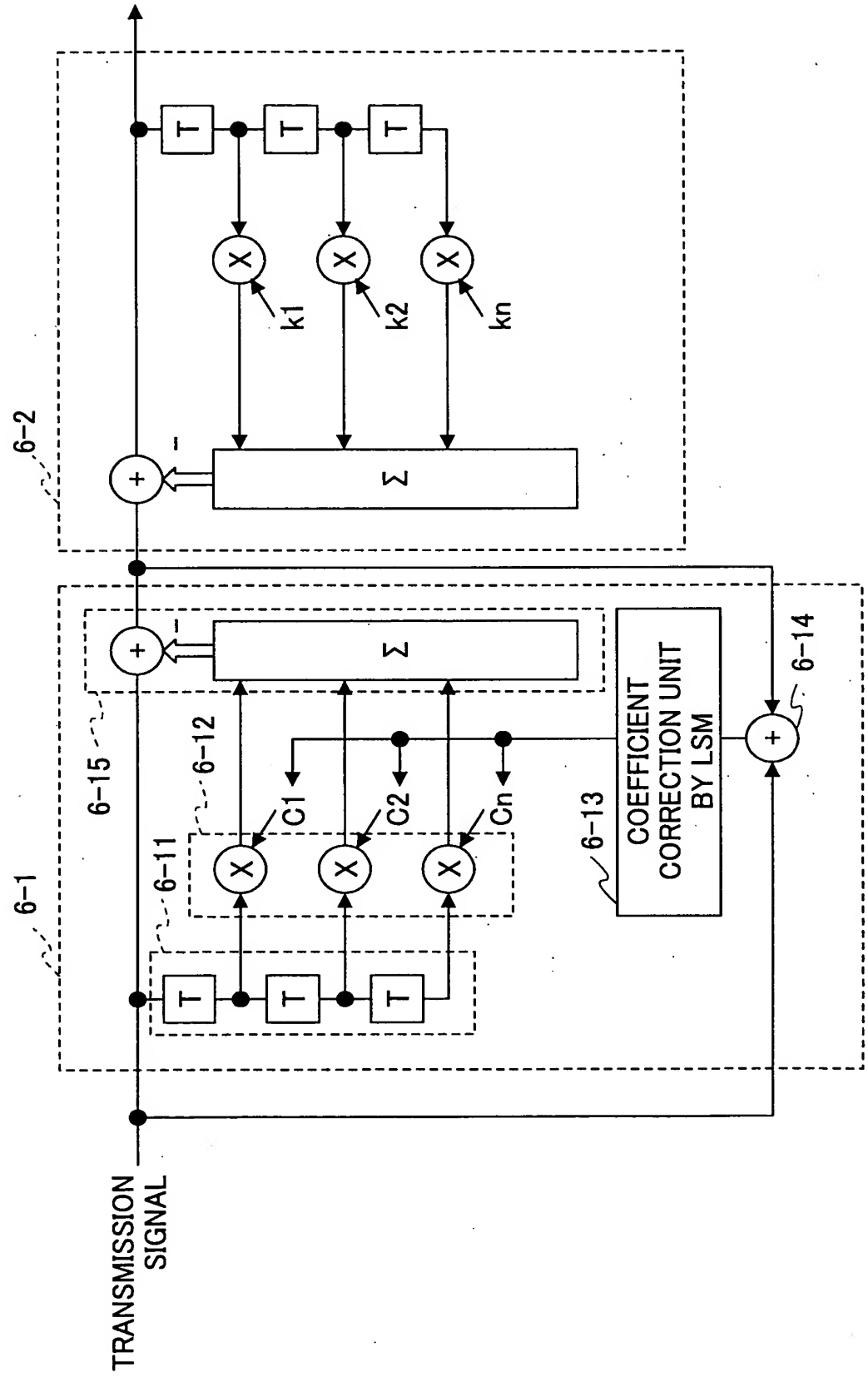

TRANSMISSION SIGNAL
6-1
6-2
6-11
6-12
6-13
6-14
6-15
T
X
Σ
k1
k2
kn
C1
C2
Cn
COEFFICIENT CORRECTION UNIT BY LSM

FIG.12

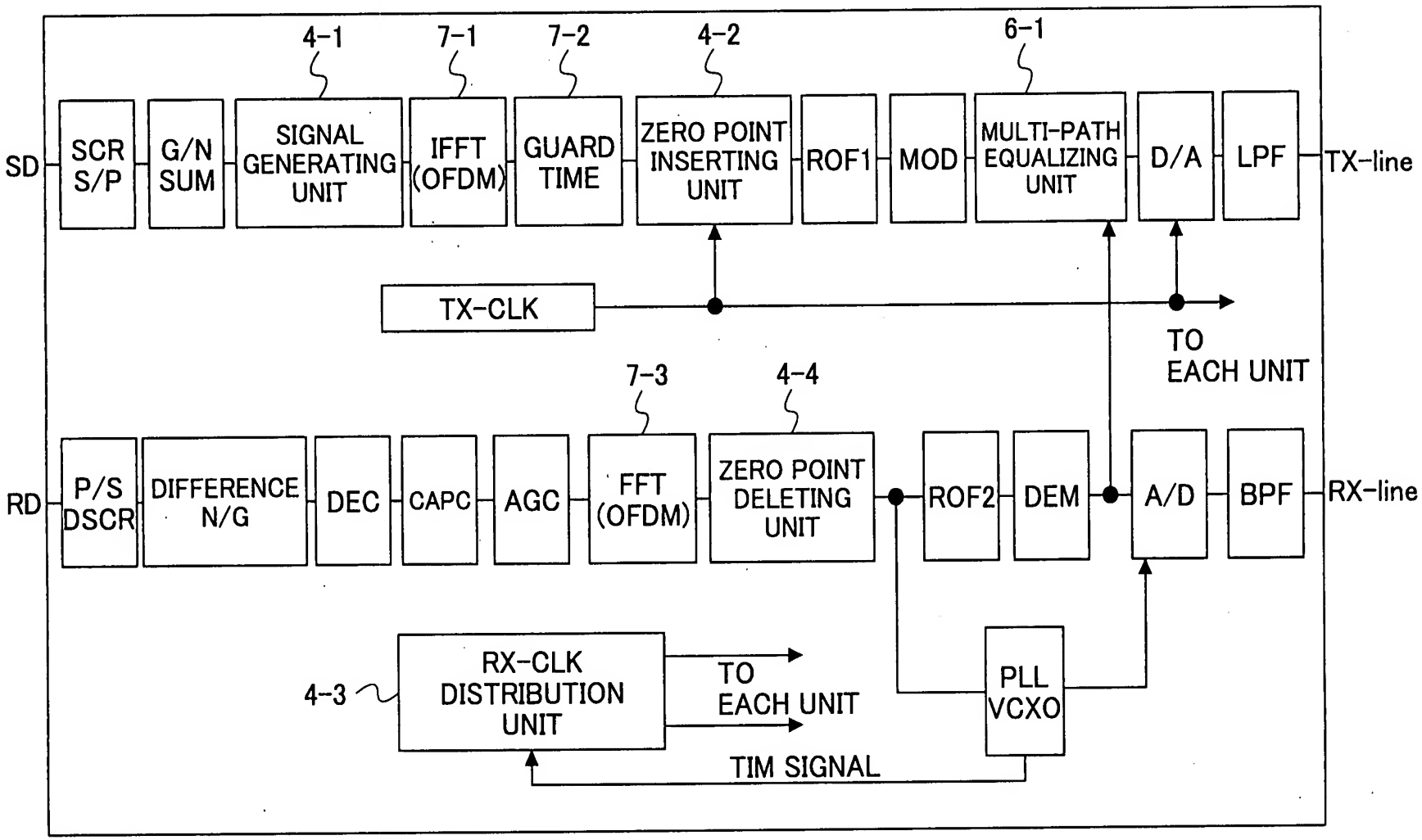

SD
SCR S/P
G/N SUM
SIGNAL GENERATING UNIT
4-1
IFFT (OFDM)
7-1
GUARD TIME
7-2
ZERO POINT INSERTING UNIT
4-2
ROF1
MOD
MULTI-PATH EQUALIZING UNIT
6-1
D/A
LPF
TX-line
TX-CLK
TO EACH UNIT
RD
P/S DSCR
DIFFERENCE N/G
DEC
CAPC
AGC
FFT (OFDM)
7-3
ZERO POINT DELETING UNIT
4-4
ROF2
DEM
A/D
BPF
RX-line
4-3
RX-CLK DISTRIBUTION UNIT
TO EACH UNIT
PLL VCXO
TIM SIGNAL

FIG.13

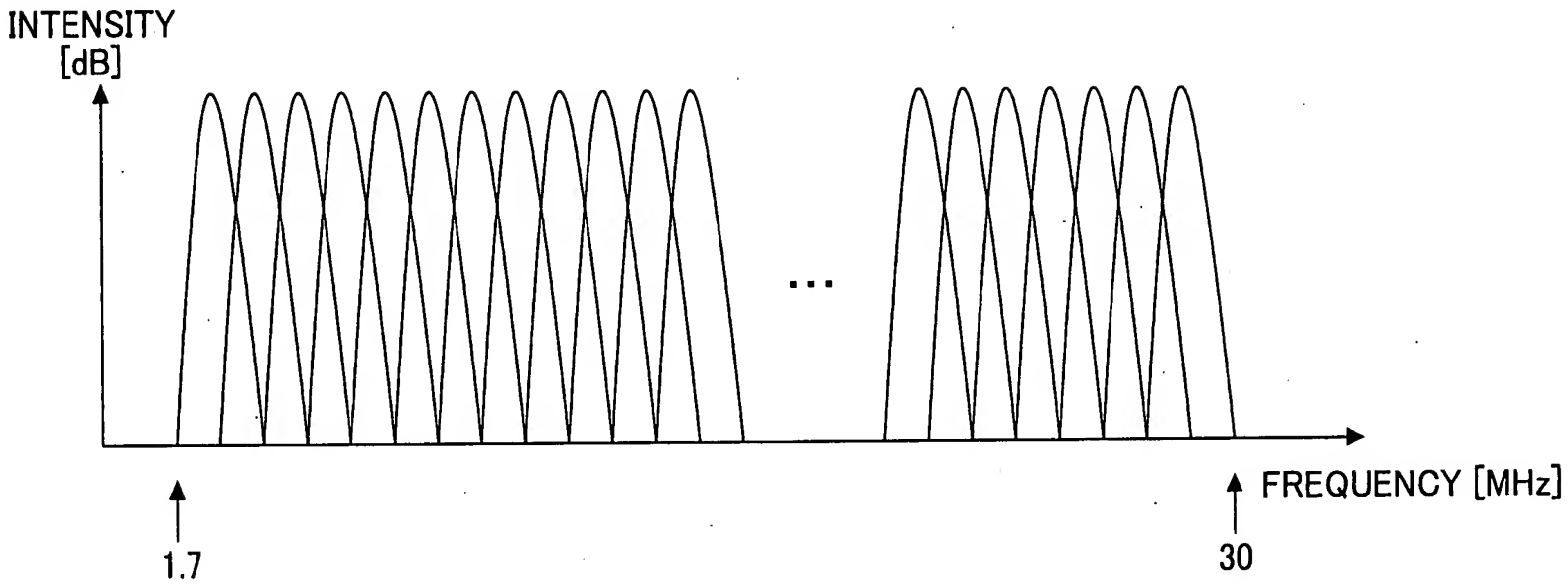


FIG.14

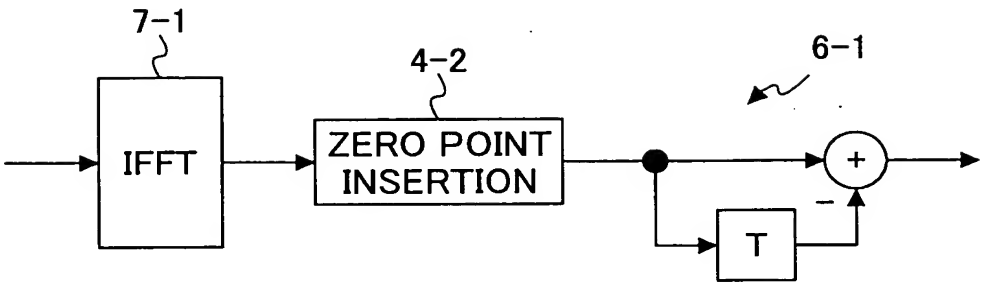


FIG.15A

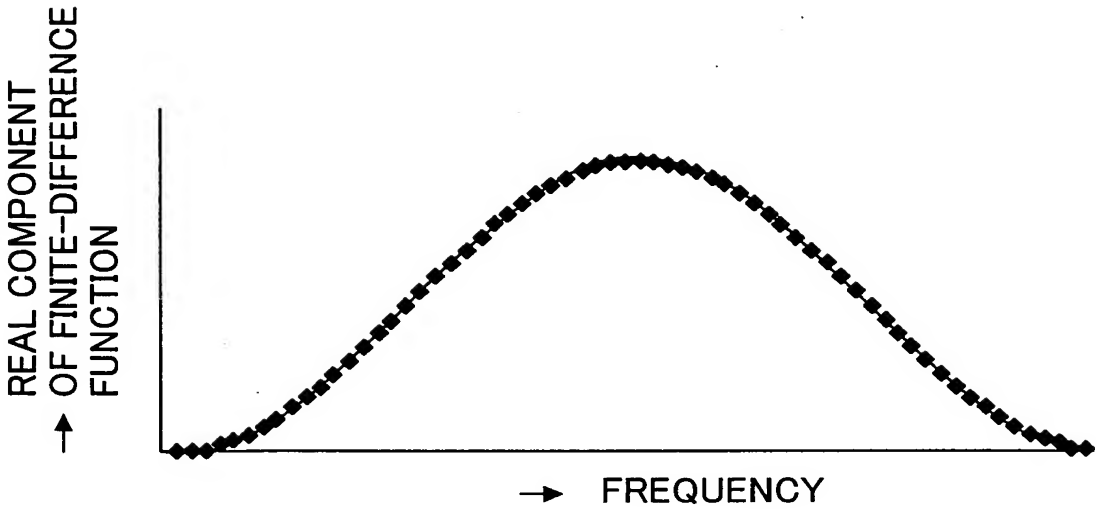


FIG.15B

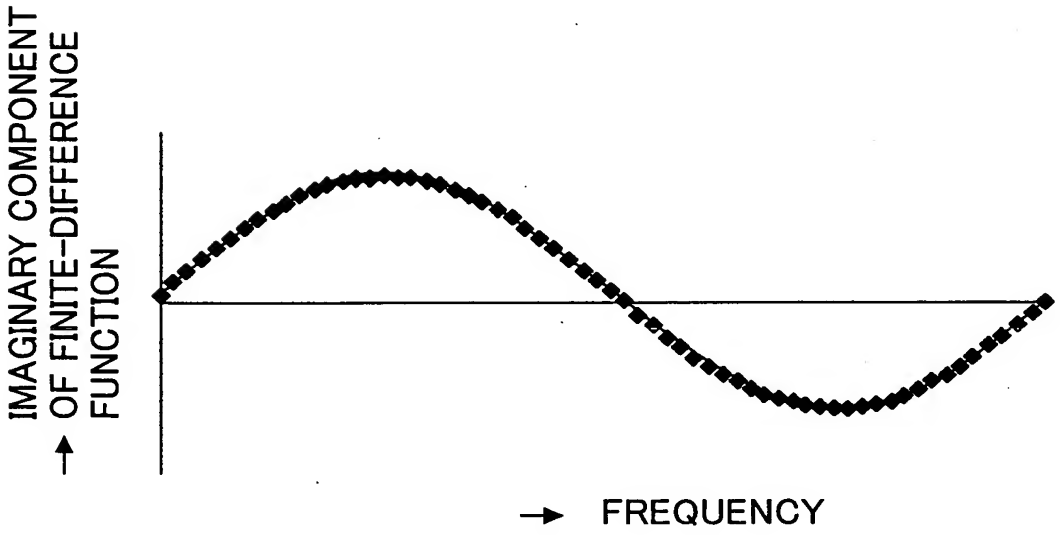


FIG.16

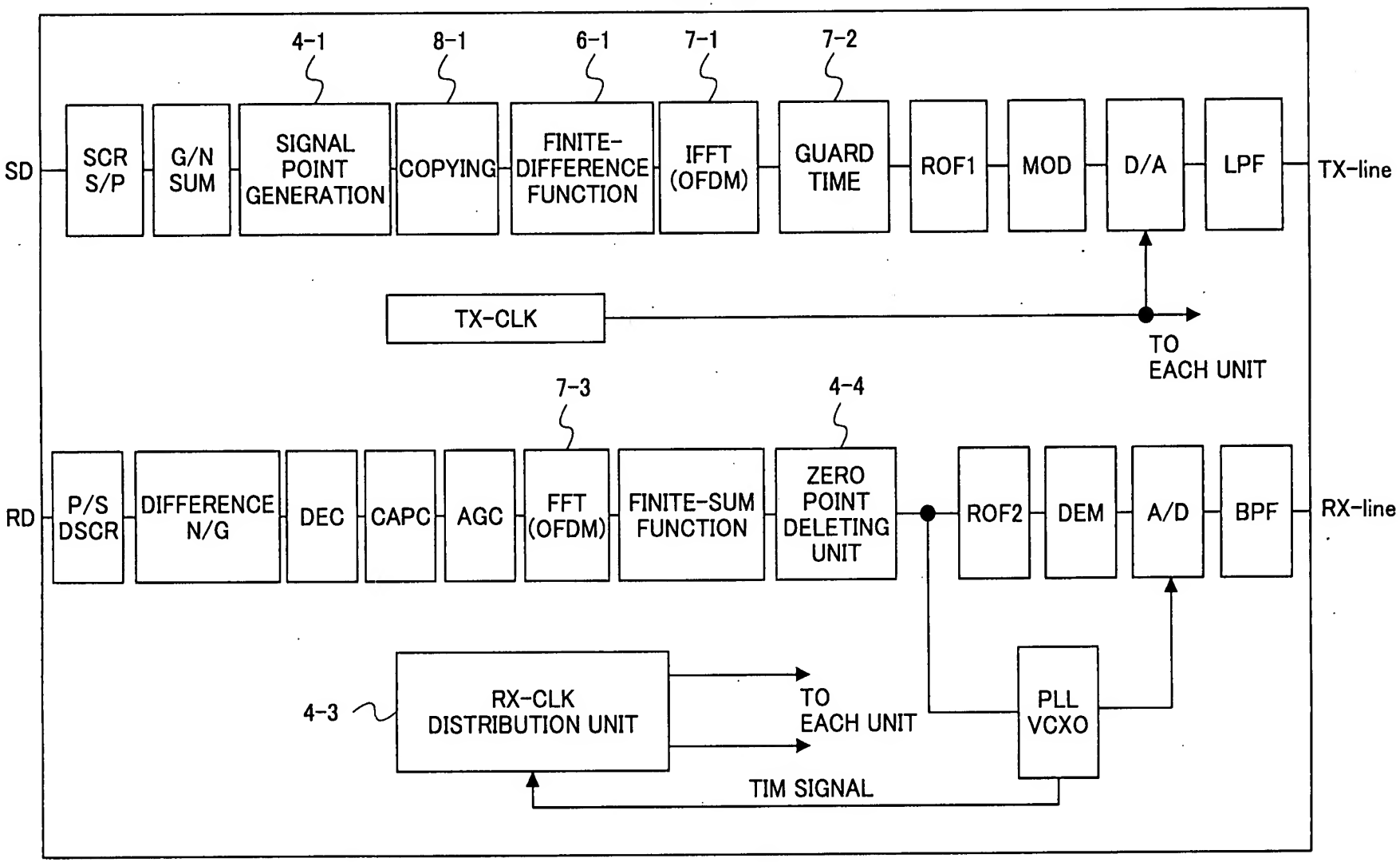

4-1
8-1
6-1
7-1
7-2
SD
SCR S/P
G/N SUM
SIGNAL POINT GENERATION
COPYING
FINITE-DIFFERENCE FUNCTION
IFFT (OFDM)
GUARD TIME
ROF1
MOD
D/A
LPF
TX-line
TX-CLK
TO EACH UNIT
7-3
4-4
RD
P/S DSCR
DIFFERENCE N/G
DEC
CAPC
AGC
FFT (OFDM)
FINITE-SUM FUNCTION
ZERO POINT DELETING UNIT
ROF2
DEM
A/D
BPF
RX-line
4-3
RX-CLK DISTRIBUTION UNIT
TO EACH UNIT
PLL VCXO
TIM SIGNAL

FIG.17A

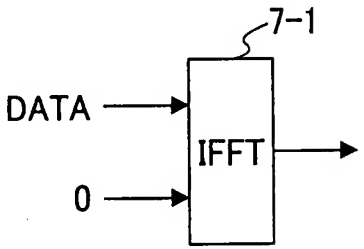


FIG.17D

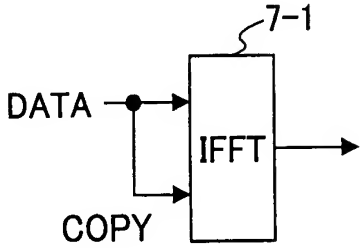


FIG.17B

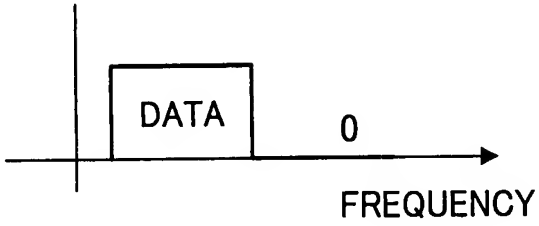


FIG.17E

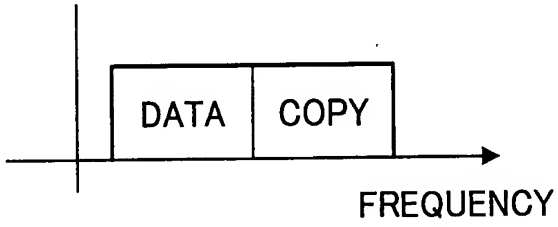


FIG.17G

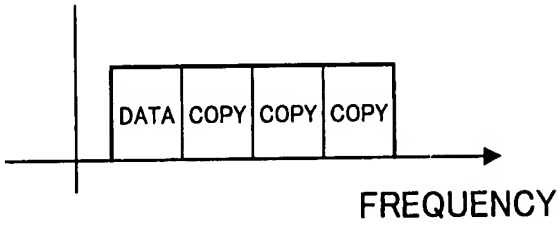


FIG.17C

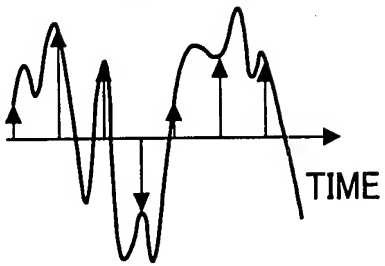


FIG.17F

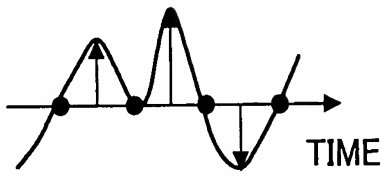


FIG.17H

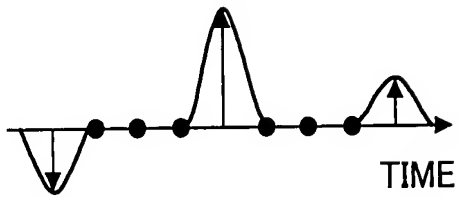


FIG.18

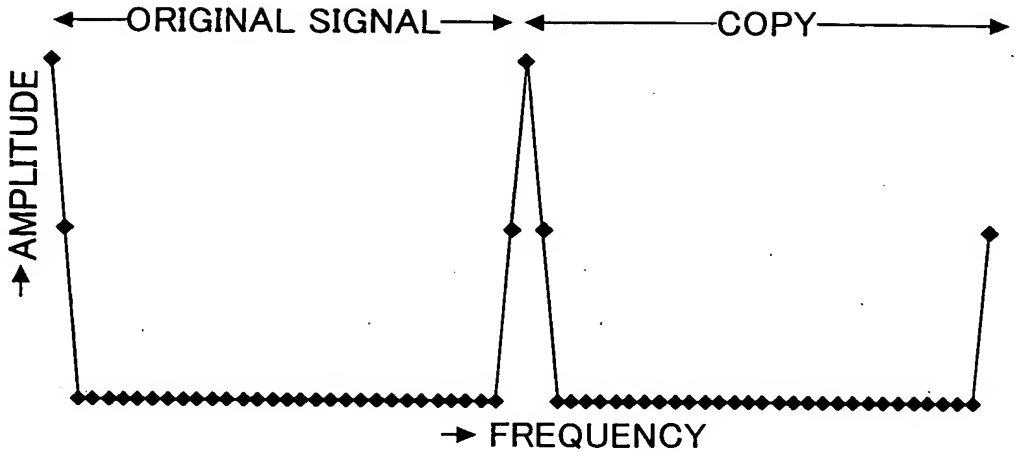

ORIGINAL SIGNAL
COPY
AMPLITUDE
FREQUENCY

FIG.19

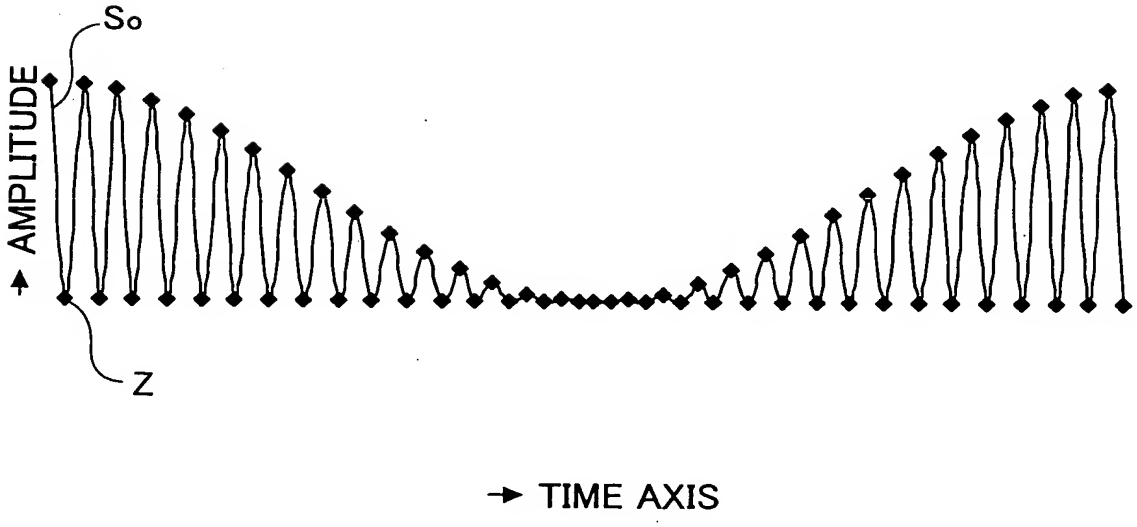

So
AMPLITUDE
Z
TIME AXIS

FIG.20

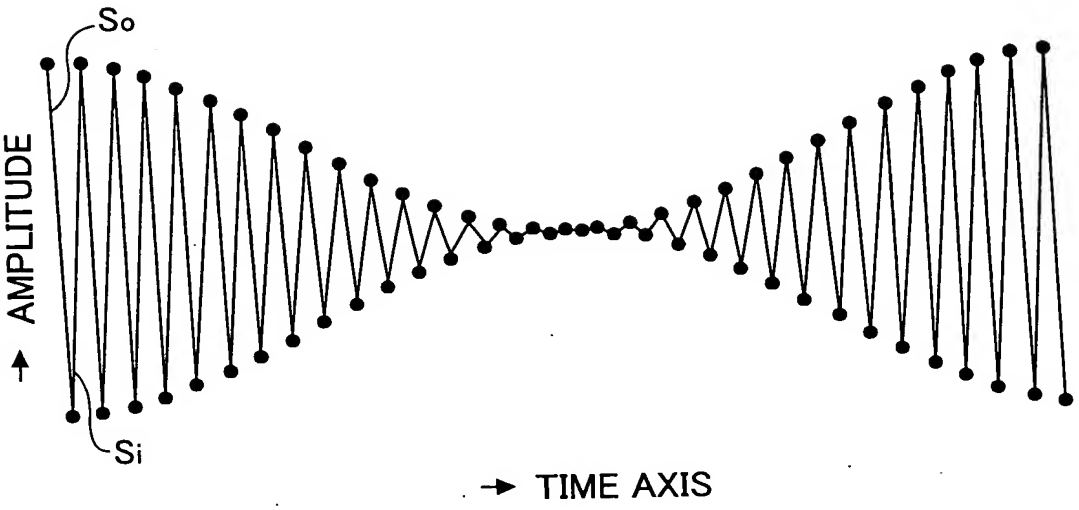

So
Si
AMPLITUDE
TIME AXIS

FIG.21

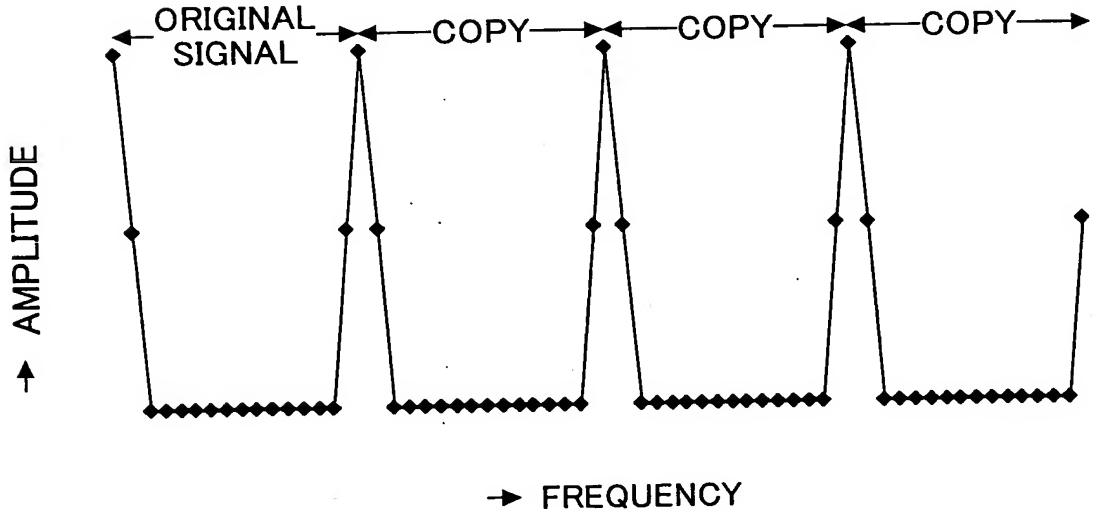

ORIGINAL SIGNAL
COPY
COPY
COPY
AMPLITUDE
FREQUENCY

FIG.22

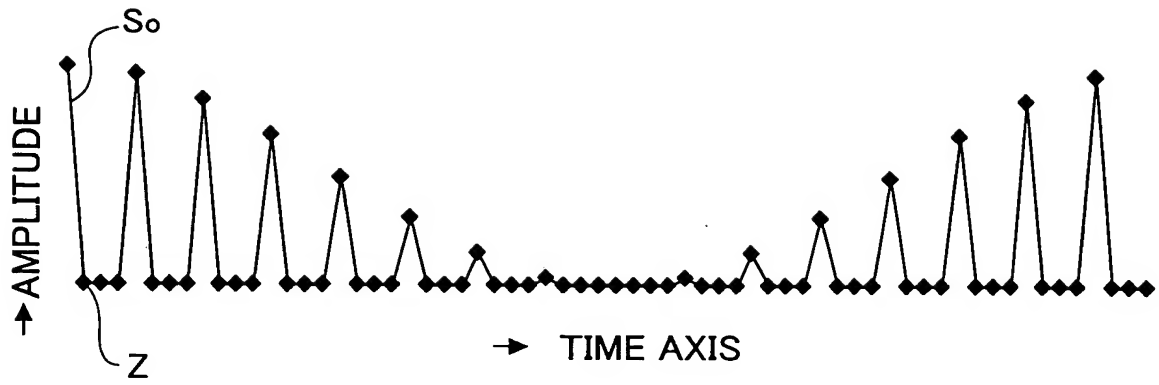


FIG.23

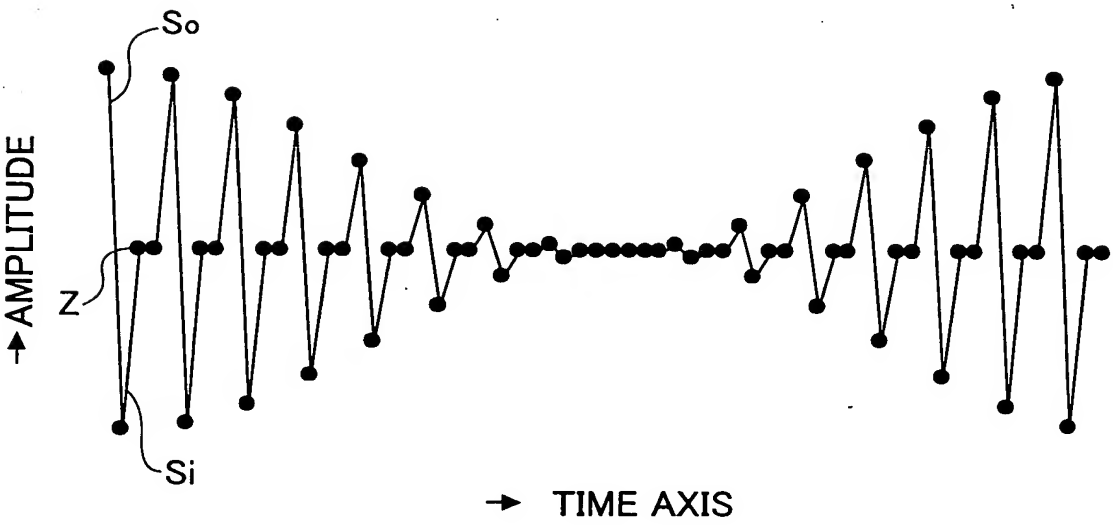


FIG.24

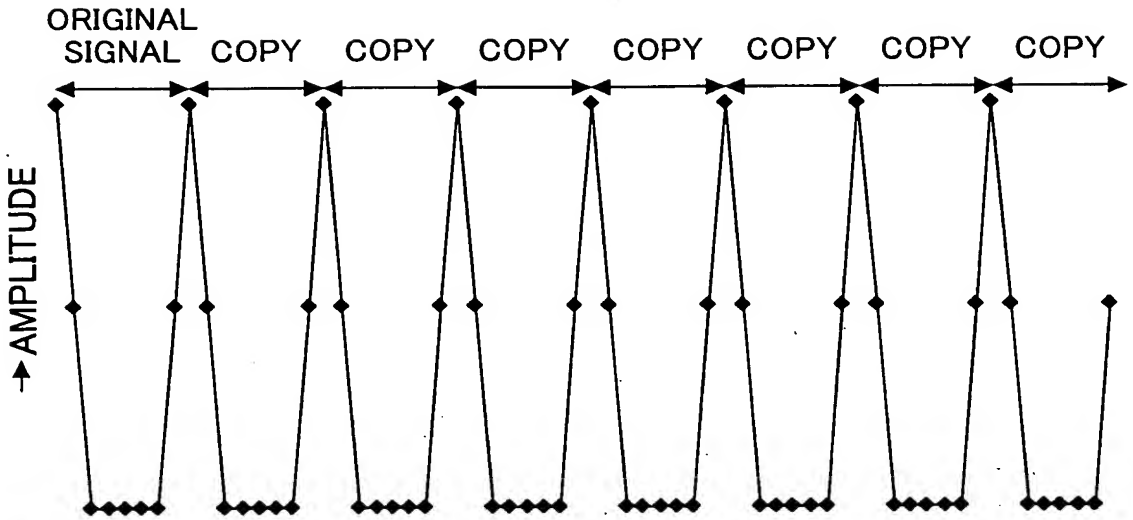

ORIGINAL SIGNAL
COPY
COPY
COPY
COPY
COPY
COPY
COPY
AMPLITUDE

FIG.25

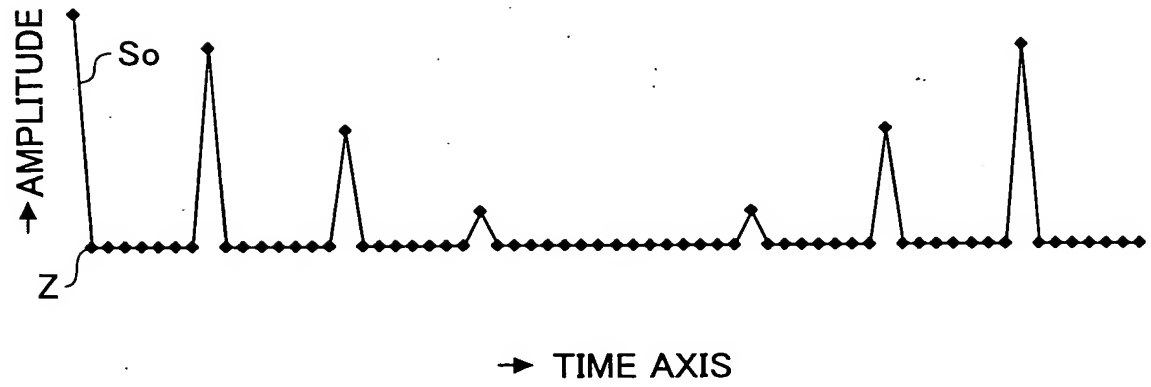

AMPLITUDE
So
Z
TIME AXIS

FIG.26

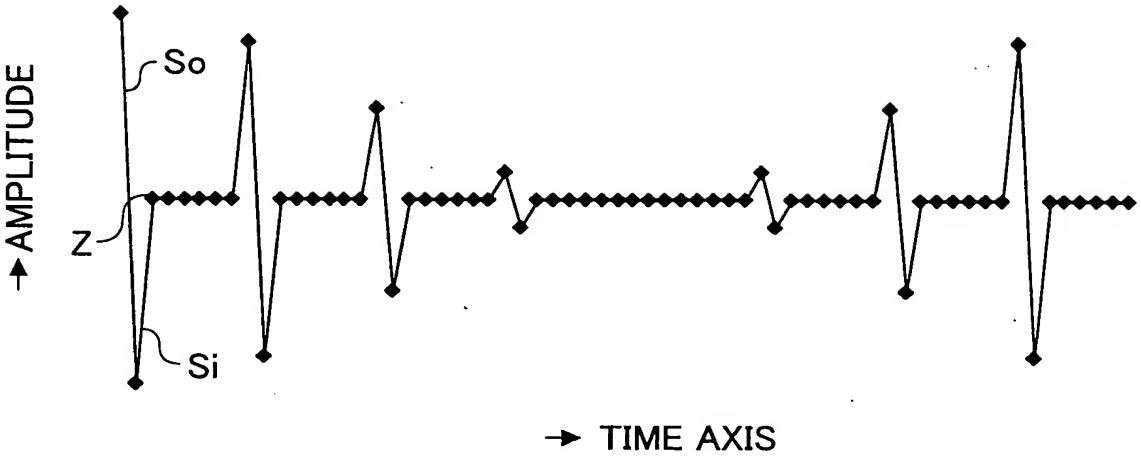


FIG.27A

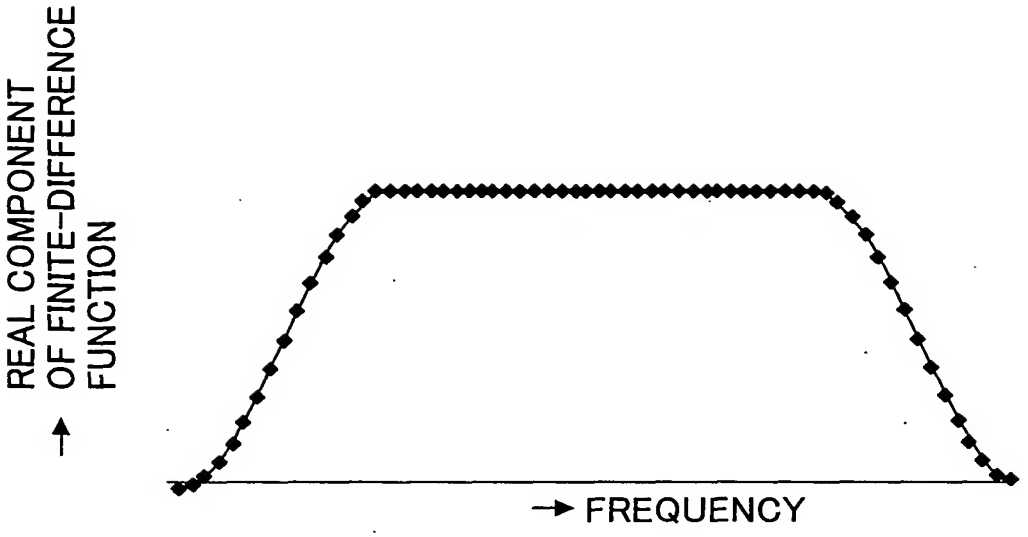


FIG.27B

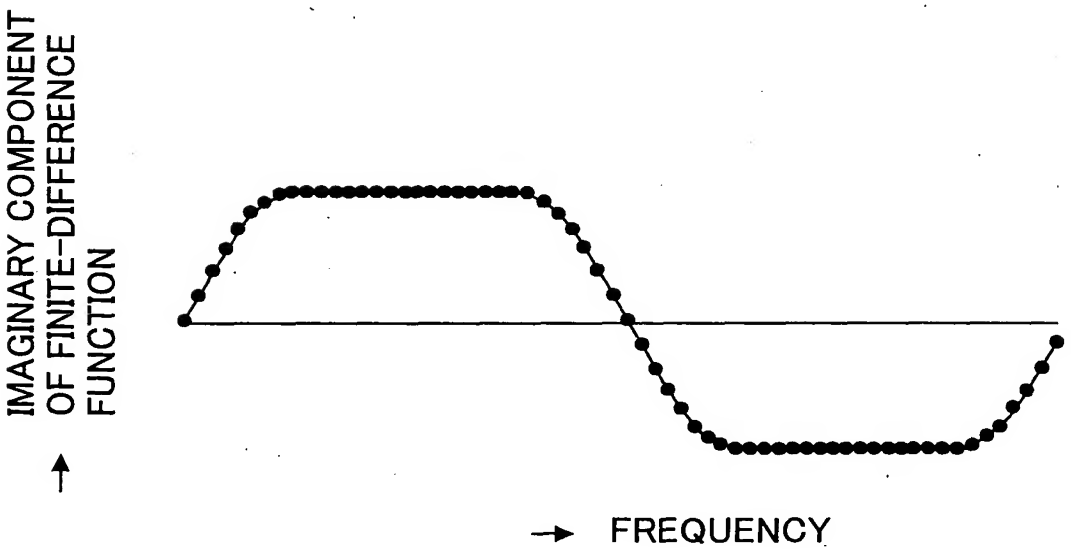


FIG.28A

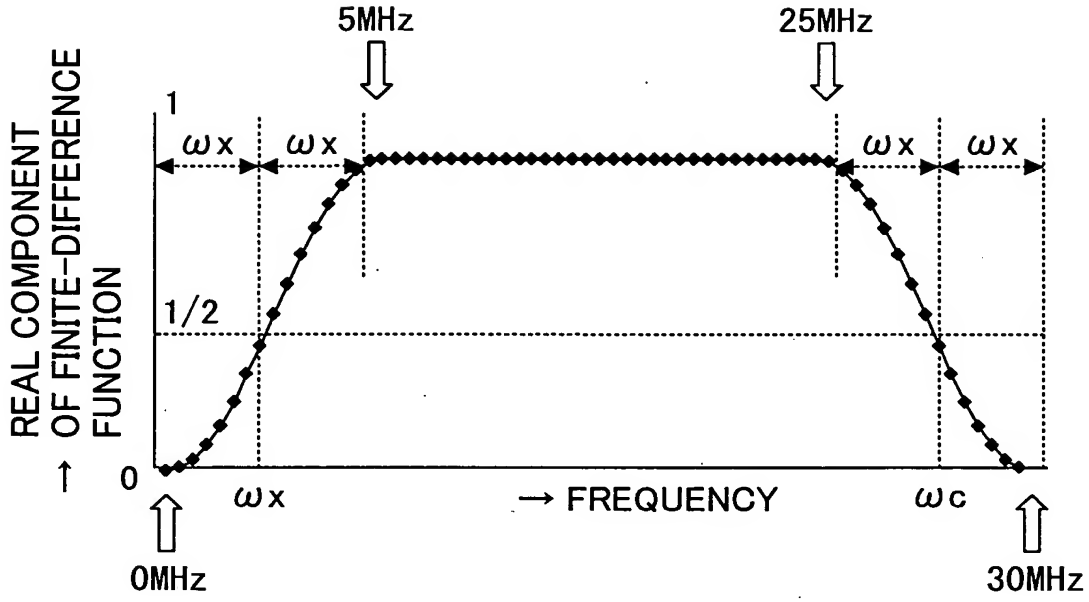
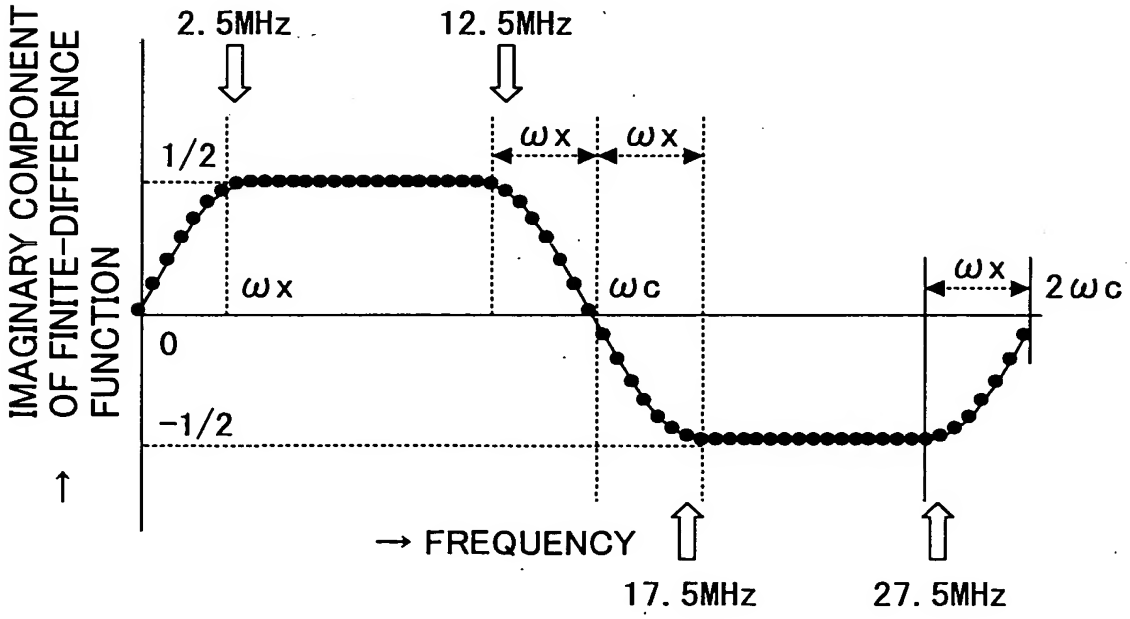



FIG.28B